

Climate Data System Supports FIRE

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Extended Abstract for Oral and Poster Presentation

The NASA Climate Data System (NCDS) at Goddard Space Flight Center is serving as the FIRE Central Archive, providing a centralized data holding and data cataloging service for the FIRE project. NCDS members are carrying out their responsibilities by holding all reduced observations and data analysis products submitted by individual principal investigators (PIs) in the agreed upon format, by holding all satellite data sets required for FIRE, by providing copies of any of these data sets to FIRE investigators, and by producing and updating a catalog with information about the FIRE holdings.

FIRE researchers were requested to provide their reduced data sets in the Standard Data Format (SDF) to the FIRE Central Archive. This standard format is proving to be of value among FSET members who share their data. An improved Standard Data Format (SDF) document is now available. There are no format changes – only improvements in clarity. The document provides an example from an actual FIRE SDF data set and clearly states the guidelines for formatting data in SDF. Researchers may refer to these instructions to create an SDF tape header or utilize the interactive GOFIRE program which exists on the NCDS "sample" SDF tape. Several data producers have used GOFIRE successfully to produce FIRE tape headers.

NCDS has received sample Standard Data Format (SDF) tapes from a number of investigators. These tapes have been analyzed and comments provided to the producers. These comments primarily consisted of compatibility and efficiency suggestions for the final product. Several investigators have delivered their complete reduced data set in "final" form to the NCDS. An NCDS programmer has completed software to inventory SDF tapes, and these tapes will be inventoried as they are received. By checking the NCDS Inventory Subsystem, FIRE PIs can immediately determine which data sets are available. NCDS will make copies of these tapes available to any FIRE PI on request. In addition, software has been completed to automatically convert the SDF data to the Common Data Format (CDF). In CDF, these data can be previewed, accessed, or browsed using the tools provided by the NCDS DATA MANIPULATION and GRAPHICS Subsystems. The staff at NCDS has been preparing for the arrival of more SDF data sets.

One product which is now available is William J. Syrett's sodar data product from the Marine Stratocumulus Intensive Field Observation. These data were automatically ingested into the NCDS, and the GRAPHICS Subsystem was used to produce the displayed plot. Verification of the NCDS's interpretation of Syrett's SDF data was possible by comparing this plot with a similar one contained in his publication – *Hourly Wind, Potential Temperature and Richardson Number Profiles at San Nicolas Island During Project FIRE*, FIRE Technical Report No. 2. Other interpretation checks are done by comparing data to those listed in the producer's test file.

Sample plots from all SDF tapes submitted to the archive will be available to FSET members. NCDS currently restricts access to data products in the FIRE Central Archive to researchers associated with the FIRE project. At a later time – when these data are to be released to the public by the Principal Investigators – NCDS will transition these data to public access and provide its usual data services. This should remove some burden on the producers in meeting their research obligations.

Members of the NCDS staff are continuing to archive FIRE satellite tapes for distribution to FIRE Science Team members. Extensive holdings of AVHRR GAC, LAC, and HRPT; TOVS HIRS, MSU, and SSU; and GOES VISSR data are available to FIRE researchers. Limited LANDSAT scenes are also available. NCDS will provide listings of available products. Investigators can also interactively check NCDS's on-line inventory to obtain the most current listing. This inventory also offers information on other useful data products, such as the ISCCP B-3 satellite data, and FSET members may obtain copies of any of these tapes.

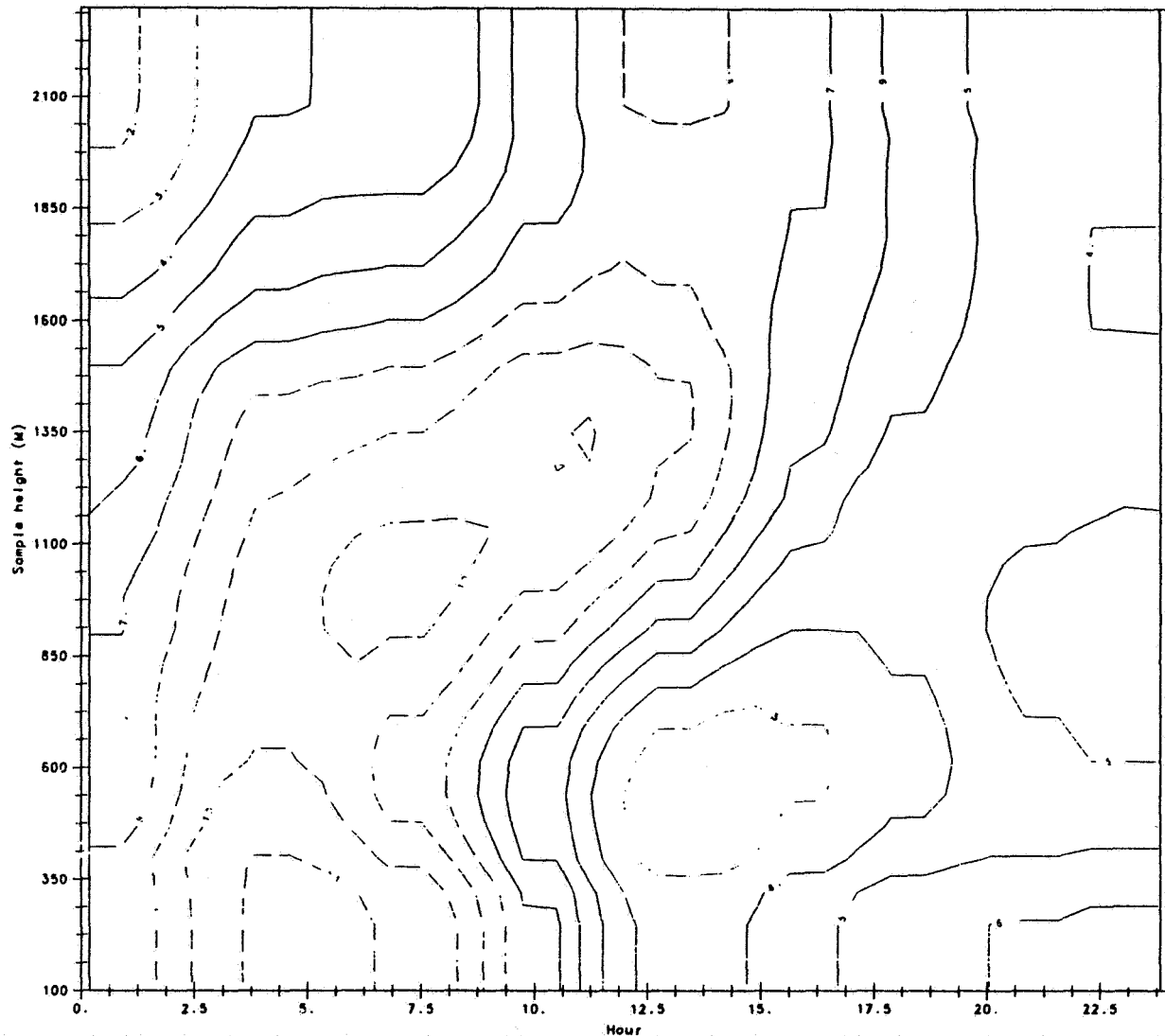
Related cloud products are also available through NCDS. NCDS provides access - both in the form of tape copy and in Common Data Format - for the Nimbus-7 Temperature Humidity Infrared Radiometer (THIR) Cloud Product (THIR CMATRIX). This product is available for April 1979 through March 1985. The same level of access will be available for the ISCCP Cloud Products, ISCCP-C1 and ISCCP-C2. Sample plots from these data sets will be available for scrutiny.

Entries describing the FIRE data sets are being provided for the NCDS on-line catalog. Detailed information for the Extended Time Observations is available in the general FIRE catalog entry. Separate catalog entries are being written for the Cirrus Intensive Field Observation (IFO) and for the Marine Stratocumulus IFO. Updates for these catalog entries are made as changes in information and data are received at NCDS. Short descriptions of each FIRE data set will be installed into the NCDS Summary Catalog. These descriptions are available as one-screen displays in NCDS's catalog format.

ncds\data:sodar-july-87

PLOTTED BY NCDS ON 20-APR-88

SODAR WIND SPEED - July 5, 1987
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